

METALLURGICAL TESTWORK

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McCLELLAND LABORATORIES, INC.

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March 26, 1996

Ms. Laura Damon
Brohm Mining Corporation
P.O. Box 485
Deadwood, SD 57732

Dear Laura:

Enclosed is our report concerning metallurgical results from heap leach cyanidation testwork conducted on the Anchor Hill core composite.

Enclosed also is our final invoice (MLI No. 2258/3673) for the testing program.

Thank you for allowing us the opportunity to serve you.

Sincerely,

Samuel A. Matthews
Project Manager

SAM:kac
Enclosure



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**Report
on
Heap Leach Cyanidation Testwork - Anchor Hill Core Composite
MLI Job No. 2258
March 26, 1996**

for

**Ms. Laura Damon
Brohm Mining Corporation
P.O. Box 485
Deadwood, SD 57732**

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EXECUTIVE SUMMARY

Direct agitated cyanidation (bottle roll) tests were conducted on the Anchor Hill core composite at the as received (100% - 2½") and 80 percent minus 1", ¾", ⅜", ¼", and 10 mesh feed sizes to determine gold recovery, recovery rate, reagent requirements, and feed size sensitivity. The composite was amenable to direct agitated cyanidation treatment at the feed sizes evaluated. Gold recovery increased with decreasing feed size and ranged from 58.6 percent (as received) to 83.3 percent (10 mesh), in 96 hours of leaching.

Indicated optimum feed size with respect to gold recovery was 80% - ¾". A gold recovery of 80.0 percent was achieved from the ¾" feed in 96 hours of leaching. Finer crushing did not significantly improve gold recovery.

Gold recovery rates ^{were} ~~for~~ fairly slow but increased with decreasing feed size.

Reagent requirements were low and generally increased slightly with decreasing feed size.

Column percolation leach tests were conducted on the Anchor Hill core composite at 80 percent minus ¾" and ½" feed sizes to determine gold recovery, recovery rate, reagent requirements, and feed size sensitivity under simulated heap leaching conditions. Column leach test results show that the composite was readily amenable to heap leach cyanidation treatment at both feed sizes. Gold recoveries of 80.6 and ^{85.7}~~87.5~~ percent were achieved from the ¾" and ½" feeds, in 56 and 70 days of leaching and washing, respectively.

Gold recovery rates were fairly rapid and extraction was progressing from both composites at a slow rate when leaching was terminated. A longer leach cycle would improve recoveries slightly.

Cyanide consumptions were low. The 3.0 pounds of lime per ton of ore added before leaching was sufficient to maintain protective alkalinity at above pH 10.2 throughout the leaching cycles.

Agglomerate strength and stability tests were conducted on the Anchor Hill core composite at an 80% - ½" feed size to optimize agglomerating conditions. Agglomerate stability test results show that agglomeration was not required for the Anchor Hill core composite.

Permeability versus load "compression leach tests" were performed by WESTEC of Reno, Nevada on the ½" leached residue. Results show that adequate permeability was maintained throughout the duration of the tests. Permeability was relatively constant under loads between 30 and 120 feet and ranged from 5.9×10^{-2} to 6.2×10^{-2} cm/sec.

COMPOSITE PREPARATION AND HEAD ANALYSES

A total of 20 buckets of Anchor Hill crushed drill core composite were received for metallurgical testwork. The contents of the 20 buckets were combined in entirety and thoroughly blended and split to obtain approximately 18 pounds for a bottle roll test at the as received (100% - 2½") feed size and 60 pounds for further crushing. The as received feed contained a small quantity of plus 3" material which was broken by hand in order to fit the bottle test ore charge into a leaching bottle. The 60 lb split was stage crushed to 80% - 1" (100% - 1½") in size and blended and split to obtain 18 pounds for a bottle roll test. The remaining 42 pounds were stage crushed to 80% - ¾" (100% - 1") in size and blended and split to obtain 11 pounds for a bottle roll test. The remaining 31 pounds was stage crushed to 80% - ⅜" (100% - ½") in size and blended and split to obtain 4.4 pounds for a bottle roll test. The remaining 26.6 pounds was staged crushed to 80% - ¼" (100% - ⅜") in size and blended and split to obtain 2.2 pounds for a bottle roll test. The final portion was stage crushed to 80% - 10M (100% - ¼") in size and blended and split to obtain 2.2 pounds for a bottle roll test.

After bottle roll test results were reviewed by Brohm Mining Corporation Personnel, instructions were issued for crushing and splitting to obtain samples for column leach tests, head screen analyses, agglomerate strength and stability tests, and head analyses. An additional 500 pounds was split from the as received Anchor Hill core composite feed for further preparation. The entire 500 lb split was crushed to 80% - ¾" (100% - 1") in size and thoroughly blended and split to obtain approximately 50 pounds for head screen analysis, 120 pounds for a column leach test, and 50 pounds of 80% - ¾" rejects. The remaining 280 pounds was stage crushed to 80% - ½" (100% - ¾") in size and blended and split to obtain approximately 50 pounds for head screen analysis, 120 pounds for a column leach test, 20 pounds for agglomerate strength and stability tests, and 10 pounds for head analyses. The 10 lb head analysis sample was thoroughly blended and split to obtain approximately 2.2 pounds (pulverized to 150M) for multi-element ICP analysis and samples for triplicate head assay and cyanide shake analysis.

Head samples were assayed using conventional fire assay fusion procedures to determine precious metal content. Head assay and cyanide shake analysis results and head grade comparisons are shown in Table 1. Multi-element ICP analysis results are provided in Table 2.

**Table 1. -Head Assay Results and Head Grade Comparisons,
Anchor Hill Core Composite**

Determination	Head Grade, oz/ton ore	
	Au	Ag
Direct Assay, Initial	0.024 (0.017)	0.12 (0.02)
Direct Assay, Duplicate	0.023* (0.020)	0.12 (0.09)
Direct Assay, Triplicate	0.026 (0.021)	0.15* (0.12)
Calc'd., Bottle Roll Test: As Rec'd. (2½")	0.029	0.13
Calc'd., Bottle Roll Test: 1"	0.030	0.12
Calc'd., Bottle Roll Test: ¾"	0.030	0.13
Calc'd., Bottle Roll Test: ⅜"	0.027	0.14
Calc'd., Bottle Roll Test: ¼"	0.029	0.15*
Calc'd., Bottle Roll Test: 10M	0.030	0.14
Calc'd., Head Screen: ¾"	0.024	0.15*
Calc'd., Head Screen: ½"	0.025	0.14
Calc'd., Column Test: ¾"	0.031*	0.11*
Calc'd., Column Test: ½"	0.028	0.13
Average	0.027	0.13
Max. Deviation from Avg.	0.004	0.02
Standard Deviation	0.003	0.01
Precision, percent	88.9	92.3

* Maximum deviation from average occurred with this determination.

Note: Numbers in parentheses give the quantities of cyanide-soluble gold and silver determined by hot cyanide shake analysis.

Head grades determined by the various methods agreed closely, although gold head grade precision was slightly below normally expected limits (>90%). Column test calculated head grade are normally considered most reliable because of the large quantity of sample evaluate and the number of check analysis preformed.

Head assay results show that the composite contained less than 0.16 ounces of silver per ton of ore. Consequently, silver recovery data are not discussed in this report.

**Table 2. - Multi-Element ICP Analysis Results,
Anchor Hill Core Composite**

Analysis, ppm	80% - ½" Feed
Aluminum	2200
Antimony	1
Arsenic	62
Boron	39
Barium	55
Bismuth	5
Cadmium	1.2
Calcium	300
Chromium	33
Cobalt	2
Copper	179
Iron	23,700
Lanthanum	16
Lead	288
Magnesium	300
Manganese	535
Mercury	<1
Molybdenum	17
Nickel	9
Phosphorus	152
Potassium	2,600
Selenium	<2
Silver	4.5
Sodium	<100
Strontium	25
Thallium	<0.5
Titanium	<100
Tungsten	50
Vanadium	12
Zinc	267

DIRECT AGITATED CYANIDATION TEST PROCEDURES AND RESULTS

Direct agitated cyanidation (bottle roll) tests were conducted on the Anchor Hill core composite at the as received (100% - 2½") and 80 percent minus 1", ¾", ⅜", ¼", and 10 mesh feed sizes to determine gold recovery, recovery rate, reagent requirements, and feed size sensitivity. Ore charges were mixed with water to achieve 40 weight percent solids. Natural pulp pHs were measured. Lime was added to adjust the pH of the pulps to 11.0 before adding the cyanide. Sodium cyanide, equivalent to 1.0 pound per ton of solution, was added to the alkaline pulps.

Leaching was conducted by rolling the pulps in bottles on the laboratory rolls for 96 hours. Rolling was suspended briefly after 2, 6, 12, 24, 48, and 72 hours to allow the pulps to settle so samples of pregnant solution could be taken for gold and silver analysis by A.A. methods. Pregnant solution volumes were measured and sampled. Cyanide concentration and pH were determined for each pregnant solution. Make-up water, equivalent to that withdrawn, was added to the pulps. Cyanide concentrations were restored to initial levels. Lime was added, when necessary, to maintain leaching pH at between 10.8 and 11.2. Rolling was then resumed.

After 96 hours, the pulps were filtered to separate liquids and solids. Final pregnant solution volumes were measured and sampled for gold and silver analysis. Final pH and cyanide concentrations were determined. Leached residues were washed, dried, weighed, and assayed in triplicate to determine residual precious metal content.

Overall metallurgical results from the bottle roll tests are provided in Table 3. Gold leach rate profiles are shown graphically in Figure 1. Tail assay results are presented in Table 4. Tail screen analysis results for the 1" leached residue are provided in Table 5. Bottle roll test raw data sheets are provided in the Appendix to this report.

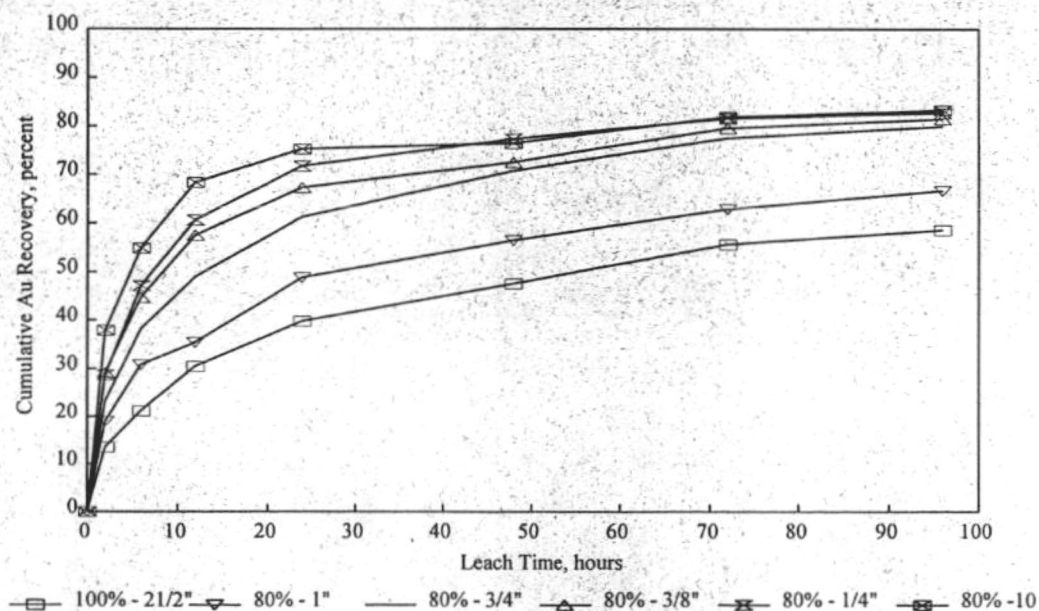
**Table 3. - Overall Metallurgical Results, Bottle Roll Tests,
Anchor Hill Core Composite**

Metallurgical Results	Feed Size					
Recovery: pct of total Au	2½"	1"	¾"	⅜"	¼"	10M
in 2 hours	13.6	19.0	23.3	29.2	28.7	37.9
in 6 hours	21.2	30.8	38.2	44.7	47.1	54.9
in 12 hours	30.5	35.4	48.9	57.5	60.6	68.4
in 24 hours	39.8	48.8	61.2	67.3	71.8	75.3
in 48 hours	47.6	56.5	70.8	72.6	77.4	76.5
in 72 hours	55.6	62.8	77.5	79.6	81.6	81.9
in 96 hours	58.6	66.7	80.0	81.5	82.8	83.8
Extracted, gAu/mt ore	0.017	0.020	0.024	0.022	0.024	0.025
Tail Assay, ozAu/ton ¹⁾	0.012	0.010	0.006	0.005	0.005	0.005
Calc'd. Head, ozAu/ton ore	0.029	0.030	0.030	0.027	0.029	0.030
Average Head, ozAu/ton ore ²⁾	0.027	0.027	0.027	0.027	0.027	0.027
NaCN Consumed, lb/ton ore	0.16	0.15	0.12	0.20	0.13	0.39
Lime Added, lb/ton ore	1.5	1.8	2.0	2.5	3.1	3.0
Final Solution pH (40% solids)	10.8	10.8	10.7	10.6	10.7	10.8
Natural pH	7.7	8.0	8.0	8.1	7.9	8.0
Ag Extracted, oz/ton ore	0.02	0.02	0.03	0.04	0.05	0.06

1) Average of triplicate direct assays.

2) Average of all head grade determinations.

Figure 1. - Gold Leach Rate Profiles, Bottle Roll Tests, Anchor Hill Core Composite



Overall metallurgical results show that the Anchor Hill core composite was amenable to direct agitated cyanidation treatment at the as received (100% - 2½") and 80% - 1" feed sizes. Gold recovery achieved in 96 hours of leaching at the as received feed size was 58.6 percent. Crushing to 80% - 1" in size improved gold recovery to 66.7 percent, in 96 hours of leaching.

The composite was readily amenable to direct agitated cyanidation treatment at 80 percent minus ¾", ¾", ¼", and 10M feed sizes. Gold recoveries increased slightly with decreasing feed size. Gold recovery, in order of decreasing feed size, was 80.0, 81.5, 82.8, and 83.3 percent, in 96 hours of leaching.

Gold recovery rates were fairly slow and increased with decreasing feed size. Gold extraction was progressing at a very slow rate from all feeds when leaching was terminated at 96 hours. A longer leach cycle would improve gold recovery slightly.

Cyanide consumptions for the feeds were low. Consumptions for the as received and 80% - 1", ¾", ¾", and ¼" were essentially the same and ranged from 0.12 to 0.20 pounds per ton of ore. Consumption at the 10 mesh feed size was slightly higher at 0.39 pounds per ton of ore. Consumption rates were fairly constant throughout the leaching cycle.

Lime requirement were low and generally increased with decreasing feed size. Lime requirements, in order of decreasing feed size, were 1.5, 1.8, 2.0, 2.5, 3.1, and 3.0 pounds per ton of ore. Controlling leaching pH was not difficult. Approximately half of the total lime required was added during interim sampling intervals, after pH adjustment procedures.

**Table 4. - Triplicate Tail Assay Results, Bottle Leached Residues,
Anchor Hill Core Composite**

Feed Size	Tail Assay, ozAu/ton				Tail Assay, ozAg/ton			
	Init.	Dup.	Trip.	Avg.	Init.	Dup.	Trip.	Avg.
100% - 2½"	0.010	0.014	0.012	0.012	0.11	0.11	0.11	0.11
80% - 1"				0.010*				0.10*
80% - ¾"	0.008	0.007	0.004	0.006	0.10	0.10	0.11	0.10
80% - ¾"	0.004	0.006	0.005	0.005	0.11	0.10	0.10	0.10
80% - ¼"	0.005	0.005	0.004	0.005	0.10	0.10	0.10	0.10
80% - 10M	0.006	0.005	0.004	0.005	0.09	0.08	0.08	0.08

* Tail screen.

**Table 5. - Tail Screen Analysis Results, Bottle Leached Residue,
Anchor Hill Core Composite, 80% - 1" Feed**

Size Fraction	Weight, percent	Cum. Wt., percent	Assay, oz/ton		Au Distribution	
			Au	Ag	percent	cum. pct.
+1"	18.2	18.2	0.011	0.09	20.1	20.1
-1+3/4"	32.1	50.3	0.015	0.10	48.2	68.3
-3/4+1/2"	16.7	67.0	0.009	0.11	15.1	83.4
-1/2+1/4"	10.7	77.7	0.006	0.09	6.4	89.8
-1/4"+10M	6.9	84.6	0.005	0.11	3.5	93.3
-10+20M	1.9	86.5	0.006	0.11	1.1	94.4
-20+35M	1.0	87.5	0.005	0.11	0.5	94.9
-35+65M	0.2	87.7	0.010	0.13	0.2	95.1
-65M	12.3	100.0	0.004	0.06	4.9	100.0
Composite	100.0		0.010	0.10	100.0	

Tail screen analysis results show that the 1" leached residue contained 0.010 ounce Au per ton. Residual gold values were fairly evenly distributed throughout the various fractions, but were somewhat enriched in the plus 3/4" fractions. Those fractions were 50.3 percent of the residue weight, but contained 68.3 percent of the residual gold values. Tail screen analysis results indicate that crushing finer than 3/4" in size would improve gold recovery.

AGGLOMERATE STRENGTH AND STABILITY TEST PROCEDURES AND RESULTS

Agglomerate strength and stability tests were conducted on the Anchor Hill core composite at an 80% - 1/2" feed size to optimize agglomerating conditions. Lime alone was evaluated as a binder.

A 20 pound split of 80% - 1/2" feed was dry screened at 10 mesh to determine the natural quantity of plus 10 mesh material. Plus and minus 10 mesh screened material was blended and split and recombined on a weighted basis to produce two identical 2.2 pound charges for agglomerate strength and stability tests.

No lime was added to the first ore charge, and 3 pounds of lime per ton of ore was added to the second charge. Ore charges were agglomerated by wetting with water to optimum moisture content (determined visually), mechanically tumbling to affect agglomeration, and curing in sealed containers for 48 hours before "jigging". Prepared agglomerates were placed onto a 10 mesh screen and were "jigged" in and out of a container of water 10 times in a 30 second period. "Jigging" in this manner imparts a shear stress to the agglomerates substantially more severe than that imparted by a percolation solution. Stability was measured empirically by comparing the

quantity of agglomerates retained on a 10 mesh screen after "jigging" with the quantity of natural feed retained on a 10 mesh screen (dry screening).

Agglomerate strength tests are normally conducted by selecting two typical agglomerates from each agglomerated ore charge before "jigging", submerging them in separate beakers of water, and observing the degree of agglomerate degradation in a 24 hour period. Agglomerate strength tests were not conducted on the Anchor Hill core composite because the agglomerated ore charges contained mostly coarse material and distinct agglomerates were not found in the charges. Optimum agglomerating conditions were determined by the point at which near maximum weight percentage was retained on the 10 mesh screen. Agglomerate stability test results are shown in Table 6.

Table 6. - Agglomerate Stability Test Results
Anchor Hill Core Composite, 80% - ½" Feed

Lime Added, lb/ ton ore	Agglomeration Moisture, weight percent	Retained on 10M Screen, weight percent	
		Dry	Agglomerated
0	5.6	78	80.1
3	5.6	78	81.9

Agglomerate stability test results show that agglomeration was not required for the Anchor Hill core composite. Weight percentages retained the 10 mesh screen were nearly the same for agglomerated charges and for the natural feed. Visual observation of the ore charges showed that the feed contained mostly coarse material.

COLUMN PERCOLATION LEACH TEST PROCEDURES AND RESULTS

Column percolation leach tests were conducted on the Anchor Hill core composite at an 80 percent minus ¾" and ½" feed sizes to determine gold recovery, recovery rate, reagent requirements, and feed size sensitivity under simulated heap leaching conditions. Ore charges did not require agglomeration pretreatment. Lime (3.0 pounds per ton of ore) was mixed with the ore charges before column loading procedures. Lime addition was based on bottle roll test results. Ore charges were placed into 6" I.D. x 10' high PVC leaching columns in a manner to minimize segregation and compaction. Apparent ore bulk densities were measured before and after leaching.

Leaching was conducted by applying barren cyanide solution (1.0 pound NaCN per ton of solution) over the ore charges at a rate of 0.005 gpm/ft² of column cross-sectional area. Pregnant solutions were collected each 24 hour period and volumes were measured by weighing. Pregnant solutions were sampled and analyzed for Au, Ag, pH, and NaCN. A.A. results were checked using the "lead boat" assay method the first 5 days of leaching. After sampling, pregnant solutions were pumped through three stage carbon circuits for adsorption of dissolved gold

values. Barren solution volumes were measured daily by weighing, and samples were taken for Au, Ag, pH and NaCN analysis. Make-up water and NaCN were added and barrenes were recycled to the ore charges daily. Loaded carbons from each test were dried, weighed, and assayed for Au and Ag to obtain a comparative metallurgical balance check. Rest cycles were allowed late in the leach cycles to determine if subsequent pregnant solution grades could be improved. Moisture required to saturate the ore charges (in process solution inventory) and retained moisture contents were determined.

After leaching, residues were washed with fresh water to remove residual cyanide (county requirement) and to recover dissolved gold values. Wash water was applied at the same rate used for leaching.

Drain down rate and volume tests were conducted after washing was complete. Solution application was terminated, and at that time, drain volumes were measured periodically by weighing. Drain volumes were measured frequently the first 24 hours, then every 24 hours until drain down was complete (120 hours).

After leaching, washing, and draining, residues were removed from the columns and moisture samples were taken immediately. Remaining 3/4" leached residue was air dried, blended, and split to obtain samples for tail screen analysis and for additional testwork at Steffen, Robertson and Kersten (SRK).

Remaining 1/2" leached residue was air dried, blended, and split to obtain a half-split for tail screen analysis and quarter-splits for testwork at SRK and permeability testing at WESTEC. Tail screens were conducted using the same procedures and size fractions as for the head screens to determine residual gold content and distribution, and to obtain recovery by size fraction data.

Overall metallurgical results from the column tests are presented in Table 7. Gold leach rate profiles are shown graphically in Figure 2. Head and tail screen analyses results and recovery by size fraction data are provided in Tables 8 through 13. Gold metallurgical balances are shown in Tables 14 and 15. Physical ore characteristics data are provided in Table 16. Drain down rate and volume test results are provided in Table 17. Drain down rate profiles are shown graphically in Figure 3. Permeability versus load "compression leach test results" are presented in Table 18. Pertinent daily column leaching data and the WESTEC report concerning permeability test results are provided in the Appendix to this report.

**Table 7. - Overall Metallurgical Results, Column Leach Tests,
Anchor Hill Core Composite**

Metallurgical Results	Feed Size	
Extraction: pct. of total Au	80% - 3/4"	80% - 1/2"
1st Effluent	11.6	9.8
in 5 days	52.9	60.8
in 10 days	65.9	73.3
in 20 days	74.0	79.8
in 24 days ¹⁾	76.1	81.2
in 31 days ²⁾	76.8	81.7
in 35 days ³⁾	78.7	82.9
in 43 days ⁴⁾	78.7	82.9
in 50 days ⁵⁾	80.1	85.7
End of Leach/Wash	80.6	85.7
Extracted, ozAu/ton ore	0.025	0.024
Tail Screen, ozAu/ton	0.006	0.004
Calc'd. Head, ozAu/ton ore	0.031	0.028
Average Head, ozAu/ton ore ⁶⁾	0.027	0.027
NaCN Consumed, lb/ton ore	0.71	0.80
Lime Added, lb/ton ore	3.0	3.0
Final Solution pH	10.3	10.4
pH after Wash	10.3	10.3
Leach/Wash Cycle, days	56	70
Ag Extracted, ozAg/ton ore	0.03	0.03

1) Begin first rest cycle.

2) Effluent after rest cycle.

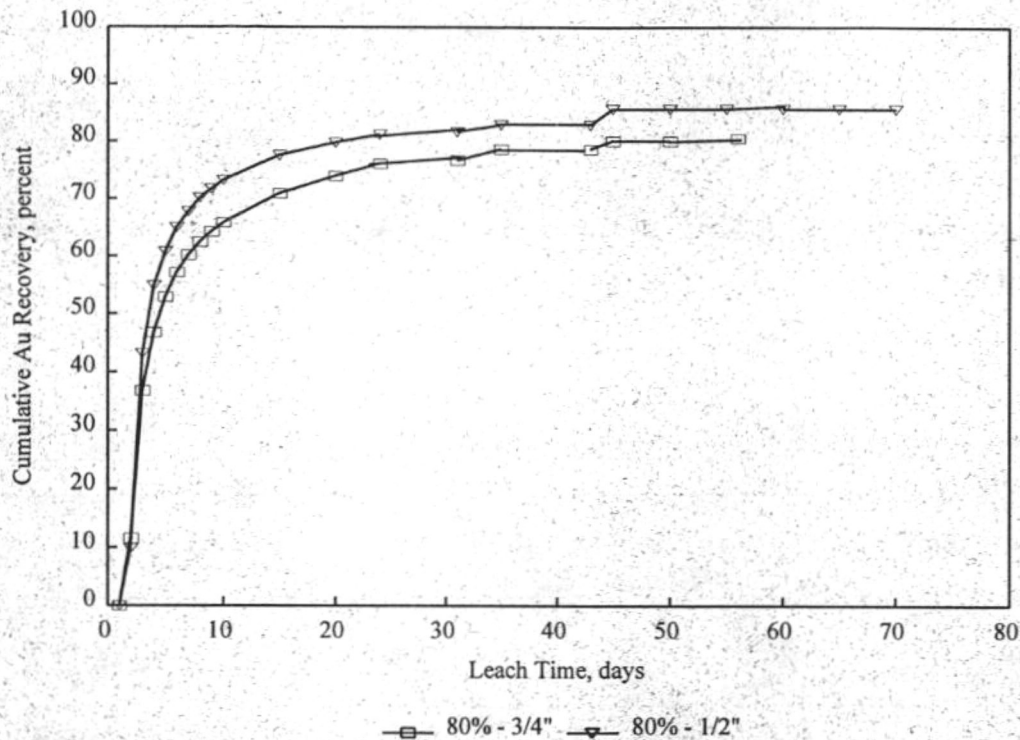
3) Begin second rest cycle.

4) Effluent after rest cycle.

5) End of leach cycle.

6) Average of all head grade determinations.

Figure 2. - Gold Leach Rate Profiles, Column Leach Tests, Anchor Hill Core Composite



Column leach test results show that Anchor Hill core composites was readily amenable to heap leach cyanidation treatment at both feed sizes evaluated. Gold recoveries of 80.6 and 85.7 percent were achieved from the 3/4" and 1/2" feeds, in 56 and 70 days of leaching and washing, respectively.

Gold recovery rates were fairly rapid and extraction was substantially complete for both composites in about 20 days of continuous leaching. Gold was extracted after 20 days, but at a slower rate. Longer leach cycles would improve gold recovery slightly. The rest cycles allowed late in the leaching cycles were effective in improving pregnant solution grades slightly, but not effective in markedly improving ultimate gold recovery or recovery rates.

Cyanide consumption for the 3/4" and 1/2" feeds were low at 0.71 and 0.80 pounds per ton of ore, respectively. Column test cyanide consumptions are usually substantially higher than those experienced in commercial production. Commercial consumption for Anchor Hill ore should be substantially lower and probably would not exceed 0.2 pounds per ton of ore. Consumption rates were fairly constant throughout the leaching cycle. The 3.0 pounds of lime per ton of ore added to the composite before leaching was sufficient to maintain protective alkalinity at above pH 10.2 throughout the leaching cycles. No additional base was required during leaching.

**Table 8. - Head Screen Analysis Results,
Anchor Hill Core Composite, 80% - 3/4" Feed**

Size Fraction	Weight, percent	Cum. Wt., percent	Assay, oz/ton ore		Au Distribution	
			Au	Ag	percent	cum. pct.
+3/4"	12.8	12.8	0.019	0.15	10.0	10.0
-3/4+1/2"	41.1	53.9	0.021	0.15	35.7	45.7
-1/2+3/8"	12.5	66.4	0.022	0.16	11.3	57.0
-3/8+1/4"	9.6	76.0	0.019	0.13	7.5	64.5
-1/4"+10M	12.4	88.4	0.022	0.14	11.3	75.8
-10+20M	3.8	92.2	0.017	0.10	2.7	78.5
-20+35M	2.6	94.8	0.027	0.13	2.9	81.4
-35+65M	1.6	96.4	0.042	0.18	2.8	84.2
-65M	3.6	100.0	0.106	0.27	15.8	100.0
Composite	100.0		0.024	0.15	100.0	

**Table 9. - Tail Screen Analysis Results, Column Leached Residue,
Anchor Hill Core Composite, 80% - 3/4" Feed**

Size Fraction	Weight, percent	Cum. Wt., percent	Assay, oz/ton		Au Distribution	
			Au	Ag	percent	cum. pct.
+3/4"	11.4	11.4	0.019	0.10	36.8	36.8
-3/4+1/2"	35.7	47.1	0.005	0.07	30.4	67.2
-1/2+3/8"	14.0	61.1	0.003	0.09	7.1	74.3
-3/8+1/4"	11.2	72.3	0.004	0.09	7.6	81.9
-1/4"+10M	14.7	87.0	0.004	0.10	10.0	91.9
-10+20M	4.4	91.4	0.003	0.08	2.3	94.2
-20+35M	2.7	94.1	0.004	0.08	1.8	96.0
-35+65M	1.5	95.6	0.004	0.10	1.0	97.0
-65M	4.4	100.0	0.004	0.09	3.0	100.0
Composite	100.0		0.006	0.08	100.0	

**Table 10. - Gold Recovery By Size Fraction Data, Column Leach Test,
Anchor Hill Core Composite, 80% - 3/4" Feed**

Size Fraction	Weight, percent		Assays, ozAu/ton		Au Recovery, percent
	Head	Tail	Head	Tail	
+3/4"	12.8	11.4	0.019	0.019	0.0
-3/4+1/2"	41.1	35.7	0.021	0.005	76.2
-1/2+3/8"	12.5	14.0	0.022	0.003	86.4
-3/8+1/4"	9.6	11.2	0.019	0.004	78.9
-1/4"+10M	12.4	14.7	0.022	0.004	81.8
-10+20M	3.8	4.4	0.017	0.003	82.4
-20+35M	2.6	2.7	0.027	0.004	85.2
-35+65M	1.6	1.5	0.042	0.004	90.5
-65M	3.6	4.4	0.106	0.004	96.2
Composite	100.0	100.0	0.024	0.006	75.0
Column Test Recovery					80.6

Head screen analysis results show that 3/4" feed contained 0.024 ozAu/ton ore. Contained gold values were fairly evenly distributed throughout the various size fractions. Gold values were, however somewhat enriched in the minus 65M fraction. That fraction was 3.6 percent of the feed weight, but contained 15.8 percent of the gold values.

Tail screen analysis results show that the 3/4" leached residue contained 0.006 ozAu/ton. Residual gold values were fairly evenly distributed throughout the various fractions, except for the plus 3/4" size fraction. That fraction was 11.4 percent of the residue weight, but contained 36.8 percent of the residual gold values. Recovery by size fraction data show that almost no gold was extracted from the plus 3/4" size fraction. Rerun head and tail (coarse fraction rejects) fraction assay results for that fraction agreed closely with original assay results. Tail screen and recovery by size fraction data indicate that crushing finer than 3/4" in size would improve heap leach recovery. However, the plus 3/4" tail fraction is still thought to be anomalously high. If that fraction assay is indeed high, then crushing finer than 3/4" would not improve heap leach recovery.

**Table 11. - Head Screen Analysis Results,
Anchor Hill Core Composite, 80% - ½" Feed**

Size Fraction	Weight, percent	Cum. Wt., percent	Assay, oz/ton ore		Au Distribution	
			Au	Ag	percent	cum. pct.
+1/2"	20.6	20.6	0.023	0.15	19.0	19.0
-1/2+3/8"	21.7	42.3	0.020	0.13	17.4	36.4
-3/8+1/4"	21.3	63.6	0.019	0.12	16.3	52.7
-1/4"+10M	22.1	85.7	0.019	0.13	16.8	69.5
-10+20M	4.9	90.6	0.021	0.15	4.1	73.6
-20+35M	3.2	93.8	0.022	0.14	2.8	76.4
-35+65M	1.7	95.5	0.034	0.15	2.3	78.7
-65M	4.5	100.0	0.118	0.21	21.3	100.0
Composite	100.0		0.025	0.14	100.0	

**Table 12. - Tail Screen Analysis Results, Column Leached Residue,
Anchor Hill Core Composite, 80% - ½" Feed**

Size Fraction	Weight, percent	Cum. Wt., percent	Assay, oz/ton		Au Distribution	
			Au	Ag	percent	cum. pct.
+1/2"	17.1	17.1	0.003	0.10	13.3	13.3
-1/2+3/8"	18.5	35.6	0.004	0.11	19.2	32.5
-3/8+1/4"	21.6	57.2	0.004	0.09	22.4	54.9
-1/4"+10M	24.7	81.9	0.004	0.10	25.7	80.6
-10+20M	6.1	88.0	0.003	0.09	4.8	85.4
-20+35M	3.5	91.5	0.003	0.10	2.7	88.1
-35+65M	2.6	94.1	0.004	0.08	2.7	90.8
-65M	5.9	100.0	0.006	0.07	9.2	100.0
Composite	100.0		0.004	0.10	100.0	

**Table 13. - Gold Recovery By Size Fraction Data, Column Leach Test,
Anchor Hill Core Composite, 80% - ½" Feed**

Size Fraction	Weight, percent		Assays, ozAu/ton		Au Recovery, percent
	Head	Tail	Head	Tail	
+1/2"	20.6	17.1	0.023	0.003	87.0
-1/2+3/8"	21.7	18.5	0.020	0.004	80.0
-3/8+1/4"	21.3	21.6	0.019	0.004	78.9
-1/4"+10M	22.1	24.7	0.019	0.004	78.9
-10+20M	4.9	6.1	0.021	0.003	85.7
-20+35M	3.2	3.5	0.022	0.003	86.4
-35+65M	1.7	2.6	0.034	0.004	88.2
-65M	4.5	5.9	0.118	0.006	94.9
Composite	100.0	100.0	0.025	0.004	84.0
Column Test Recovery					85.7

Head screen analysis results show that the ½" feed contained 0.025 ozAu/ton ore. Contained gold values were not evenly distributed throughout the various size fractions. Gold values were strongly enriched in the minus 65M fraction. That fraction was 4.5 percent of the feed weight, but contained 21.3 percent of the gold values.

Tail screen analysis results show that the ½" leached residue contained 0.004 ozAu/ton. Residual gold values were fairly evenly distributed throughout the various size fractions, with slight enrichment in the minus 65 mesh fraction. Tail screen and recovery by size fraction data indicate that crushing finer than ½" would not improve gold recovery.

**Table 14. - Gold Metallurgical Balances, Column Leach Test,
Anchor Hill Core Composite, 80% - ¾" Feed**

	Balance		
	Sol. vs. Tail	Carbon vs. Tail	Head vs. Tail ²⁾
Extracted, ozAu/ton ore	0.025	0.025	0.021
Tail Screen, ozAu/ton	0.006	0.006	0.006
Calc'd. Head, ozAu/ton ore	0.031	0.031	0.027
Au Recovery, percent	80.6	80.6	77.8
Deviation, ozAu/ton ore ¹⁾	N/A	0.000	0.004
Precision, percent	100.0	100.0	87.1

1) Deviation from solution versus tail calculated head.

2) Calculated based on average of all head grade determinations and tail screen analysis results.

**Table 15. - Gold Metallurgical Balances, Column Leach Test,
Anchor Hill Core Composite, 80% - ½" Feed**

	Balance		
	Sol. vs. Tail	Carbon vs. Tail	Head vs. Tail ²⁾
Extracted, ozAu/ton ore	0.024	0.023	0.023
Tail Screen, ozAu/ton	0.004	0.004	0.004
Calc'd. Head, ozAu/ton ore	0.028	0.027	0.027
Au Recovery, percent	85.7	85.2	85.2
Deviation, ozAu/ton ore ¹⁾	N/A	0.001	0.001
Precision, percent	100.0	96.4	96.4

1) Deviation from solution versus tail calculated head.

2) Calculated based on average of all head grade determinations and tail screen analysis results.

Metallurgical balances agreed closely, although precision for the head versus tail balance for the ¾" feed was slightly below normal precision limits (>90%). Solution versus tail balance is normally considered most reliable because of the number of check analyses performed on pregnant solution samples. That balance was used for all percentage recovery calculations.

**Table 16. - Physical Ore Characteristic Data, Column Leach Tests,
Anchor Hill Core Composite**

Feed Size	Ore Charge, lbs.	Moisture Requirements, wt. pct.		Bulk Density, lb/ft ³	
		to Saturate ¹⁾	Retained	Before	After
3/4"	118.5	11.2	7.8	91.43	91.63
1/2"	123.4	9.5	6.9	88.13	88.13

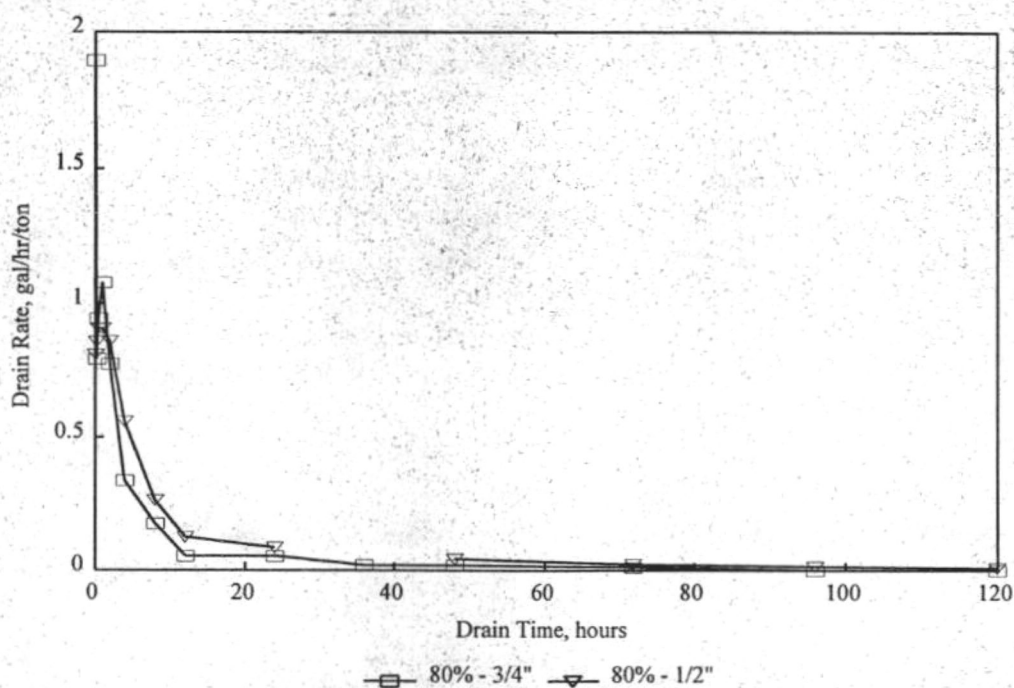
1) Calculated on a dry ore weight basis.

Physical ore characteristic data show that little "slumping" occurred during leaching. Ore apparent bulk density for both feeds was nearly the same before and after leaching. Saturation and retained moistures were low. No solution percolation, fines migration, or solution channeling problems were encountered during leaching.

**Table 17. - Drain Down Rate Test Results, Column Leached Residues,
Anchor Hill Core Composite**

Drain Time, hours	Effluent Solution					
	80% - 3/4" Feed			80% - 1/2" Feed		
	Gallons	Cum. gal/ton	Rate, gal/hr/ton	Gallons	Cum. gal/ton	Rate, gal/hr/ton
0.08	0.009	0.15	1.897	0.004	0.06	0.810
0.25	0.008	0.29	0.794	0.009	0.21	0.858
0.50	0.014	0.52	0.944	0.014	0.44	0.908
1.00	0.032	1.06	1.079	0.028	0.89	0.908
2.00	0.046	1.84	0.776	0.053	1.75	0.859
4.00	0.046	2.61	0.388	0.069	2.87	0.559
8.00	0.042	3.32	0.177	0.065	3.92	0.263
12.00	0.013	3.54	0.055	0.031	4.42	0.126
24.00	0.039	4.20	0.055	0.064	5.46	0.086
36.00	0.014	4.44	0.020			
48.00	0.014	4.67	0.020	0.065	6.52	0.044
72.00	0.017	4.96	0.012	0.035	7.08	0.024
96.00	0.000	4.96	0.000	0.022	7.44	0.015
120.00	0.000	4.96	0.000	0.015	7.68	0.010

**Figure 3. - Drain Down Rate Profiles, Column Leached Residues,
Anchor Hill Core Composite**



Drain down test results show that, after termination of solution application, 4.96 and 7.68 gallons of effluent per ton of residue drained from the 80% - 3/4" and 80% - 1/2" feed size column leached residues in 120 hours, respectively. Drain down rates were rapid and drain down was substantially complete in 24 hours.

**Table 18 - Permeability Versus Load Compression Leach Test Results,
Column Leached Residue, Anchor Hill Core Composite, 80% - 1/2" Feed**

Load, feet	Sample Height, inches	Wet Density, lb/ft ³	Moisture Content, wt. pct.	Dry Density, lb/ft ³	Percent Consolidation	Permeability, cm/sec
0	5.605	83.9	0.2	83.8	0.00	0
Saturation	5.560			84.5	0.80	8.2×10^{-2}
30	5.345			87.9	4.64	6.2×10^{-2}
60	5.270			89.1	5.98	6.1×10^{-2}
90	5.205			90.2	7.14	6.0×10^{-2}
120	5.155	98.6	8.2	91.1	8.03	5.9×10^{-2}

Compression leach test results show that adequate permeability was maintained throughout the duration of the tests conducted on the Anchor Hill 1/2" column leached residue. Permeability was relatively constant under loads between 30 and 120 feet and ranged from 5.9×10^{-2} to 6.2×10^{-2} cm/sec.

COLUMN NEUTRALIZATION RINSE DOWN PROCEDURES AND RESULTS

A column percolation neutralization washing test was conducted on the 1/2" column leached residue to determine the rate of decrease in WAD cyanide concentration and effluent pH. Neutralization washing was conducted by applying fresh water daily to the column leached residue at a rate of 0.005 gpm/ft² of column cross-sectional area. Daily effluent volume was measured and analyzed for Au, Ag, pH, and free NaCN. Samples were taken from daily wash effluents for WAD cyanide analysis. Each sample for WAD cyanide analyses was preserved by adjusting the pH to 12.0 with NaOH and refrigerating (4° C). The first 10 effluents from the neutralization test, and every 5th effluent thereafter were submitted to High Desert Laboratories for WAD cyanide analysis. Neutralization washing continued until column effluent WAD cyanide concentrations were less than 0.2 ppm.

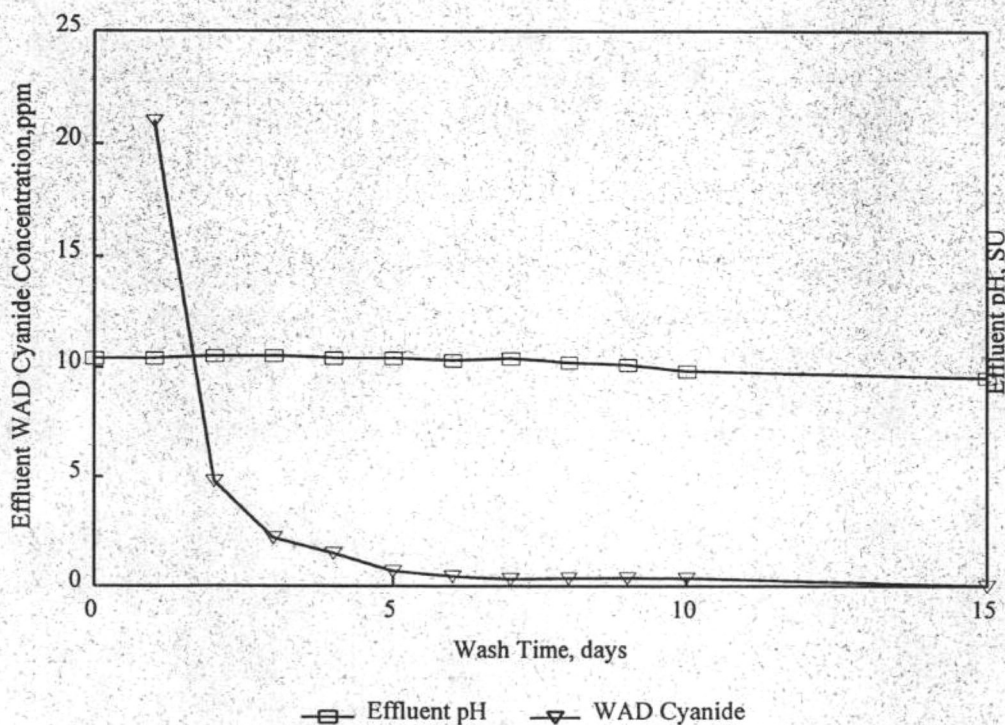
Daily wash effluent pH and cyanide analyses results are provided in Table 19. Effluent WAD cyanide neutralization and pH profiles are shown graphically in Figure 4.

**Table 19. - Cyanide Neutralization Washing Data,
Column Leached Residue, Anchor Hill Core Composite, 80% - ½" Feed**

Wash Effluent Day	Wash Solution Applied, ton sol./ton res.	Effluent Analyses		
		pH	Cyanide, ppm	
			WAD	free
0*	0.000	10.4		212
1	0.095	10.4	21.0	133
2	0.190	10.5	4.8	53
3	0.285	10.5	2.2	53
4	0.380	10.4	1.5	80
5	0.475	10.4	0.68	<27
6	0.570	10.3	0.45	<27
7	0.665	10.4	0.33	<27
8	0.760	10.2	0.35	<27
9	0.855	10.1	0.37	<27
10	0.950	9.8	0.36	<27
15	1.425	9.5	<0.04	<27

* Final pregnant solution.

**Figure 4. - Neutralization Profiles, Water Washing, Column Leached Residue,
Anchor Hill Core Composite, 80% - 1/2" Feed**



Cyanide neutralization data show that fresh water washing was effective in decreasing effluent WAD cyanide concentrations from approximately 21.0 ppm to less than 0.04 mg/l in 15 days of washing. Cyanide neutralization rate was fairly rapid and effluent WAD cyanide concentration was less than 1.0 ppm in 5 days of washing. Effluent pH decreased fairly rapidly from 10.4 to 9.5 in 15 days of washing.

CONCLUSIONS

- The Anchor Hill core composite was amenable to direct agitated cyanidation treatment at all feed sizes evaluated.
- Indicated optimum feed size with respect to gold recovery was 80% - 3/4".
- Gold recovery rates were fairly slow but increased with decreasing feed size.
- Reagent requirements were low and generally increased slightly with decreasing feed size.
- The Anchor Hill core composite was readily amenable to heap leach cyanidation treatment at an 80 percent minus 3/4" and 1/2" feed sizes.
- Gold recovery rates were fairly rapid.
- Cyanide consumptions were low.
- The 3.0 pounds of lime per ton of ore added to the Anchor Hill core composite feeds before leaching was sufficient to maintain protective alkalinity at above pH 10.2 throughout the leaching cycles.
- Agglomeration was not required for the Anchor Hill core composite.
- Fresh water washing of the Anchor Hill Core Composite 1/2" Column Leached Residue was effective in decreasing effluent WAD cyanide concentrations to below regulatory levels.
- Effluent pH decreased during the neutralization rinse cycle from 10.4 to 9.5 STU.

RECOMMENDATIONS

We recommend that additional heap leach testwork should be conducted on representative bulk ore composites to determine leach ability at a crush size (possibly ROM) coarser than 3/4".



Samuel A. Matthews
Project Manager

APPENDIX

Bottle Roll Test

Job No: 2258
 Test No: CY-01
 Sample: Anchor Hill Drill Core Composite
 Feed Size: As Received (100 Percent Minus 2 1/2") Feed

Ore Charge: grams 8020.00 tons 0.0088 assay tons 274.968

Solution Vol.: mls 12030.00 tons 0.0133
 Solids Density: Weight % 40.0

Natural pH: stu 7.7
 Cyanide Concentration Maintained at: 1.0 lb NaCN/ton sol

Raw Data

Leach Time, hours	Reagents Applied		Volume mls	Solution Withdrawn and Solution Analysis				Removed From Pulp	
	<u>grams</u>	<u>grams</u>		NaCN Conc. lb/ton sol	pH	Au PPM	Ag PPM	Au mg	Ag mg
Initial	3.00	6.02							
2			100	1.0	11.1	0.09	0.08	0.009	0.008
6	0.00	0.06	100	0.9	11.0	0.14	0.11	0.014	0.011
12	0.00	0.65	100	1.0	10.7	0.20	0.15	0.020	0.015
24	0.25	0.06	100	1.0	10.6	0.26	0.20	0.026	0.020
48	0.60	0.06	100	1.0	10.6	0.31	0.27	0.031	0.027
72	1.00	0.06	100	1.0	10.7	0.36	0.30	0.036	0.030
96	1.25	0.06		1.0	10.8	0.38	0.34	0.000	0.000

Metallurgical Results

Leach Time, hours	Cumulative Au Extraction			Cumulative Ag Extraction			Reagent Requirements Cumulative lb/ton ore	
	<u>mg</u>	<u>oz/ton ore</u>	<u>percent of total</u>	<u>mg</u>	<u>oz/ton ore</u>	<u>percent of total</u>	Cyanide Consumed	Lime Added
Initial								0.7
2	1.083	0.0039	13.6	0.962	0.0035	2.7	0.00	0.7
6	1.693	0.0062	21.2	1.331	0.0048	3.7	0.15	0.7
12	2.429	0.0088	30.5	1.824	0.0066	5.1	0.15	0.8
24	3.171	0.0115	39.8	2.440	0.0089	6.8	0.16	1.0
48	3.798	0.0138	47.6	3.302	0.0120	9.2	0.16	1.2
72	4.431	0.0161	55.6	3.690	0.0134	10.3	0.16	1.5
96	4.707	0.017	58.6	4.201	0.02	15.4	0.16	1.5

	<u>Au</u>	<u>% of total</u>		<u>Ag</u>	<u>% of total</u>
Extracted, oz/ton ore	0.017	58.6		0.02	15.4
Tail assay, oz/ton	0.012			0.11	
Calculated Head, oz/ton ore	0.029			0.13	

Cyanide Consumed, lb/ton ore 0.16
 Lime Added, lb/ton ore 1.5

Leached Residue

Final Residue Weight, grams 7994.00

<u>Tail Assay</u>	<u>ozAu/ton</u>	<u>ozAg/ton</u>
Initial	0.010	0.11
Duplicate	0.014	0.11
Triplicate	0.012	0.11
Average	0.012	0.11

<u>Head Assay</u>	<u>ozAu/ton</u>	<u>ozAg/ton</u>
Initial	0.024	0.12
Duplicate	0.023	0.12
Triplicate	0.026	0.15
Average	0.024	0.13

Bottle Roll Test

Job No: 2258
 Test No: CY-02
 Sample: Anchor Hill Drill Core Composite
 Feed Size: 80 Percent Minus 1" Feed

Ore Charge: grams 8000.00 tons 0.0088 assay tons 274.283

Solution Vol.: mls 12000.00 tons 0.0132
 Solids Density: Weight % 40.0

Natural pH: stu 8.0
 Cyanide Concentration Maintained at: 1.0 lb NaCN/ton sol

Raw Data

Leach Time, hours	Reagents Applied		Volume mls	Solution Withdrawn and Solution Analysis				Removed From Pulp	
	<u>grams</u>	<u>NaCN</u>		<u>NaCN Conc.</u>	<u>pH</u>	<u>Au</u>	<u>Ag</u>	<u>Au</u>	<u>Ag</u>
	<u>lime</u>			<u>lb/ton sol</u>		<u>PPM</u>	<u>PPM</u>	<u>mg</u>	<u>mg</u>
Initial	3.00	6.00							
2			100	1.0	10.8	0.13	0.19	0.013	0.019
6	0.25	0.05	100	1.0	10.8	0.21	0.25	0.021	0.025
12	0.25	0.05	100	1.0	10.6	0.24	0.29	0.024	0.029
24	0.60	0.05	100	1.0	10.7	0.33	0.36	0.033	0.036
48	0.70	0.05	100	1.0	10.6	0.38	0.45	0.038	0.045
72	1.00	0.05	100	1.0	10.6	0.42	0.49	0.042	0.049
96	1.50	0.05		0.9	10.8	0.44	0.51	0.000	0.000

Metallurgical Results

Leach Time, hours	Cumulative Au Extraction			Cumulative Ag Extraction			Reagent Requirements	
	<u>mg</u>	<u>oz/ton ore</u>	<u>percent of total</u>	<u>mg</u>	<u>oz/ton ore</u>	<u>percent of total</u>	<u>Cumulative lb/ton ore</u>	
							<u>Cyanide Consumed</u>	<u>Lime Added</u>
Initial								0.8
2	1.560	0.0057	19.0	2.280	0.0083	6.9	0.00	0.8
6	2.533	0.0092	30.8	3.019	0.0110	9.2	0.00	0.9
12	2.914	0.0106	35.4	3.524	0.0128	10.7	0.00	1.0
24	4.018	0.0146	48.8	4.393	0.0160	13.3	0.00	1.2
48	4.651	0.0170	56.5	5.509	0.02	16.7	0.00	1.5
72	5.169	0.0188	62.8	6.034	0.02	16.7	0.00	1.8
96	5.451	0.020	66.7	6.323	0.02	16.7	0.15	1.8

	<u>Au</u>	<u>% of total</u>		<u>Ag</u>	<u>% of total</u>
Extracted, oz/ton ore	0.020	66.7		0.02	16.7
Tail assay, oz/ton	0.010			0.10	
Calculated Head, oz/ton ore	0.030			0.12	

Cyanide Consumed, lb/ton ore 0.15
 Lime Added, lb/ton ore 1.8

Leached Residue

Final Residue Weight, grams

<u>Tail Screen</u>	<u>ozAu/ton</u>	<u>ozAg/ton</u>
	0.010	0.10
<u>Average</u>	0.010	0.10

<u>Head Assay</u>	<u>ozAu/ton</u>	<u>ozAg/ton</u>
Initial	0.024	0.12
Duplicate	0.023	0.12
Triplicate	0.026	0.15
Average	0.024	0.13

Bottle Roll Test

Job No: 2258
 Test No: CY-03
 Sample: Anchor Hill Drill Core Composite
 Feed Size: 80 Percent Minus 3/4" Feed

Ore Charge: grams 5040.00 tons 0.0056 assay tons 172.798

Solution Vol.: mls 7560.00 tons 0.0083
 Solids Density: Weight % 40.0

Natural pH: stu 8.0
 Cyanide Concentration Maintained at: 1.0 lb NaCN/ton sol

Raw Data

Leach Time, hours	Reagents Applied		Volume mls	Solution Withdrawn and Solution Analysis			Removed From Pulp	
	grams lime	NaCN		NaCN Conc. lb/ton sol	pH	Au PPM	Ag PPM	Au mg
Initial	3.00	3.77	-----	-----	-----	-----	-----	-----
2	-----	-----	100	1.0	11.1	0.16	0.33	0.016
6	0.00	0.04	100	1.0	11.0	0.26	0.40	0.026
12	0.00	0.04	100	1.0	10.7	0.33	0.47	0.033
24	0.25	0.04	100	1.0	10.6	0.41	0.54	0.041
48	0.50	0.04	100	1.0	10.6	0.47	0.64	0.047
72	1.00	0.04	100	1.0	10.8	0.51	0.68	0.051
96	0.25	0.04	-----	0.9	10.7	0.52	0.72	0.000

Metallurgical Results

Leach Time, hours	Cumulative Au Extraction			Cumulative Ag Extraction			Reagent Requirements Cumulative lb/ton ore	
	mg	oz/ton ore	percent of total	mg	oz/ton ore	percent of total	Cyanide Consumed	Lime Added
Initial	-----	-----	-----	-----	-----	-----	-----	1.2
2	1.210	0.0070	23.3	2.495	0.0144	11.1	0.00	1.2
6	1.982	0.0115	38.2	3.057	0.0177	13.6	0.00	1.2
12	2.537	0.0147	48.9	3.626	0.0210	16.1	0.00	1.3
24	3.175	0.0184	61.2	4.202	0.0243	18.7	0.00	1.5
48	3.669	0.0212	70.8	5.012	0.0290	22.3	0.00	1.9
72	4.019	0.0233	77.5	5.379	0.03	23.1	0.00	2.0
96	4.145	0.0240	80.0	5.749	0.03	23.1	0.12	2.0

	<u>Au</u>	<u>% of total</u>	<u>Ag</u>	<u>% of total</u>
Extracted, oz/ton ore	0.024	80.0	0.03	23.1
Tail assay, oz/ton	0.006		0.10	
Calculated Head, oz/ton ore	0.030		0.13	

Cyanide Consumed, lb/ton ore 0.12
 Lime Added, lb/ton ore 2.0

Leached Residue

Final Residue Weight, grams 2057.25

<u>Tail Assay</u>	<u>ozAu/ton</u>	<u>ozAg/ton</u>
Initial	0.008	0.10
Duplicate	0.007	0.10
Triplicate	0.004	0.11
Average	0.006	0.10

<u>Head Assay</u>	<u>ozAu/ton</u>	<u>ozAg/ton</u>
Initial	0.024	0.12
Duplicate	0.023	0.12
Triplicate	0.026	0.15
Average	0.024	0.13

Bottle Roll Test

Job No: 2258
 Test No: CY-04
 Sample: Anchor Hill Drill Core Composite
 Feed Size: 80 Percent Minus 3/8" Feed

Ore Charge: grams 2060.35 tons 0.0023 assay tons 70.640

Solution Vol.: mls 3090.53 tons 0.0034
 Solids Density: Weight % 40.0

Natural pH: stu 8.1
 Cyanide Concentration Maintained at: 1.0 lb NaCN/ton sol

Raw Data

Leach Time, hours	Reagents Applied		Volume mls	Solution Withdrawn and Solution Analysis				Removed From Pulp	
	lime	NaCN		NaCN Conc. lb/ton sol	pH	Au PPM	Ag PPM	Au mg	Ag mg
Initial	1.50	1.55							
2			100	1.0	11.3	0.18	0.41	0.018	0.041
6	0.00	0.06	100	0.9	11.3	0.27	0.50	0.027	0.050
12	0.00	0.21	100	1.0	10.9	0.34	0.56	0.034	0.056
24	0.10	0.06	100	1.0	10.8	0.39	0.64	0.039	0.064
48	0.30	0.06	100	1.0	10.7	0.41	0.74	0.041	0.074
72	0.70	0.06	100	1.0	11.0	0.44	0.80	0.044	0.080
96	0.00	0.00		1.0	10.6	0.43	0.84	0.000	0.000

Metallurgical Results

Leach Time, hours	Cumulative Au Extraction			Cumulative Ag Extraction			Reagent Requirements Cumulative lb/ton ore	
	mg	oz/ton ore	percent of total	mg	oz/ton ore	percent of total	Cyanide Consumed	Lime Added
Initial								1.5
2	0.556	0.0079	29.2	1.267	0.0179	12.8	0.00	1.5
6	0.852	0.0121	44.7	1.586	0.0225	16.0	0.16	1.5
12	1.096	0.0155	57.5	1.822	0.0258	18.4	0.17	1.6
24	1.284	0.0182	67.3	2.125	0.0301	21.5	0.18	1.8
48	1.385	0.0196	72.6	2.498	0.0354	25.3	0.19	2.5
72	1.519	0.0215	79.6	2.757	0.0390	27.9	0.20	2.5
96	1.532	0.022	81.5	2.961	0.04	28.6	0.20	2.5

	<u>Au</u>	<u>% of total</u>		<u>Ag</u>	<u>% of total</u>
Extracted, oz/ton ore	0.022	81.5		0.04	28.6
Tail assay, oz/ton	0.005			0.10	
Calculated Head, oz/ton ore	0.027			0.14	

Cyanide Consumed, lb/ton ore 0.20
 Lime Added, lb/ton ore 2.5

Leached Residue

Final Residue Weight, grams 5041.40

<u>Tail Assay</u>	<u>ozAu/ton</u>	<u>ozAg/ton</u>
Initial	0.004	0.11
Duplicate	0.006	0.10
Triplicate	0.005	0.10
Average	0.005	0.10

<u>Head Assay</u>	<u>ozAu/ton</u>	<u>ozAg/ton</u>
Initial	0.024	0.12
Duplicate	0.023	0.12
Triplicate	0.026	0.15
Average	0.024	0.13

Bottle Roll Test

Job No: 2258
 Test No: CY-05
 Sample: Anchor Hill Drill Core Composite
 Feed Size: 80 Percent Minus 1/4" Feed

Ore Charge: $\frac{\text{grams}}{1030.28}$ $\frac{\text{tons}}{0.0011}$ $\frac{\text{assay tons}}{35.323}$

Solution Vol.: $\frac{\text{mls}}{1545.42}$ $\frac{\text{tons}}{0.0017}$ Solids Density: $\frac{\text{Weight \%}}{40.0}$

Natural pH: $\frac{\text{stu}}{7.9}$ Cyanide Concentration Maintained at: 1.0 lb NaCN/ton sol

Raw Data

Leach Time, hours	Reagents Applied		Volume mls	Solution Withdrawn and Solution Analysis			Removed From Pulp	
	lime	grams NaCN		NaCN Conc. lb/ton sol	pH	Au PPM	Ag PPM	Au mg
Initial	1.00	0.78						
2			100	1.0	11.4	0.19	0.62	0.019
6	0.00	0.06	100	1.0	11.4	0.30	0.71	0.030
12	0.00	0.06	100	1.0	11.1	0.37	0.75	0.037
24	0.00	0.06	100	1.0	10.9	0.42	0.81	0.042
48	0.10	0.06	100	1.0	10.7	0.43	0.89	0.043
72	0.50	0.06	100	1.0	11.0	0.43	0.92	0.043
96	0.00	0.06		1.0	10.7	0.41	0.92	0.000

Metallurgical Results

Leach Time, hours	Cumulative Au Extraction			Cumulative Ag Extraction			Reagent Requirements Cumulative lb/ton ore	
	mg	oz/ton ore	percent of total	mg	oz/ton ore	percent of total	Cyanide Consumed	Lime Added
Initial								1.9
2	0.294	0.0083	28.7	0.958	0.0271	18.1	0.01	1.9
6	0.483	0.0137	47.1	1.159	0.0328	21.9	0.03	1.9
12	0.621	0.0176	60.6	1.292	0.0366	24.4	0.05	1.9
24	0.735	0.0208	71.8	1.460	0.0413	27.6	0.07	2.1
48	0.793	0.0224	77.4	1.664	0.0471	31.4	0.09	3.1
72	0.836	0.0237	81.6	1.800	0.05	33.3	0.11	3.1
96	0.848	0.024	82.8	1.892	0.05	33.3	0.13	3.1

	<u>Au</u>	<u>% of total</u>		<u>Ag</u>	<u>% of total</u>
Extracted, oz/ton ore	0.024	82.8		0.05	33.3
Tail assay, oz/ton	0.005			0.10	
Calculated Head, oz/ton ore	0.029			0.15	

Cyanide Consumed, lb/ton ore 0.13
 Lime Added, lb/ton ore 3.1

Leached Residue

Final Residue Weight, grams 1031.12

Tail Assay	ozAu/ton	ozAg/ton
Initial	0.005	0.10
Duplicate	0.005	0.10
Triplicate	0.004	0.10
Average	0.005	0.10

Head Assay	ozAu/ton	ozAg/ton
Initial	0.024	0.12
Duplicate	0.023	0.12
Triplicate	0.026	0.15
Average	0.024	0.13

Bottle Roll Test

Job No: 2258
 Test No: CY-06
 Sample: Anchor Hill Drill Core Composite
 Feed Size: 80 Percent Minus 10 Mesh Feed

	<u>grams</u>	<u>tons</u>	<u>assay tons</u>
Ore Charge:	1058.64	0.0012	36.296

	<u>mls</u>	<u>tons</u>	<u>Weight %</u>
Solution Vol.:	1587.96	0.0018	Solids Density: 40.0

Natural pH:	<u>stu</u> 8.0	Cyanide Concentration Maintained at:	1.0 lb NaCN/ton sol
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Raw Data

Leach Time, hours	Reagents Applied		Solution Withdrawn and Solution Analysis					Removed From Pulp	
	<u>grams</u> lime	NaCN	<u>Volume</u> mls	NaCN Conc. lb/ton sol	pH	Au PPM	Ag PPM	Au mg	Ag mg
Initial	0.80	0.80							
2			100	1.0	11.2	0.26	0.95	0.026	0.095
6	0.00	0.06	100	0.8	11.1	0.36	1.01	0.036	0.101
12	0.00	0.21	100	1.0	10.8	0.43	1.06	0.043	0.106
24	0.20	0.06	100	1.0	10.9	0.45	1.10	0.045	0.110
48	0.20	0.06	100	1.0	10.9	0.43	1.10	0.043	0.110
72	0.40	0.06	100	1.0	11.2	0.44	1.08	0.044	0.108
96	0.00	0.00		1.0	10.8	0.41	1.05	0.000	0.000

Metallurgical Results

Leach Time, hours	Cumulative Au Extraction			Cumulative Ag Extraction			Reagent Requirements	
	<u>mg</u>	<u>oz/ton ore</u>	<u>percent of total</u>	<u>mg</u>	<u>oz/ton ore</u>	<u>percent of total</u>	<u>Cumulative lb/ton ore</u> Cyanide Consumed	Lime Added
Initial								1.5
2	0.413	0.0114	37.9	1.509	0.0416	29.7	0.01	1.5
6	0.598	0.0165	54.9	1.699	0.0468	33.4	0.33	1.5
12	0.745	0.0205	68.4	1.879	0.0518	37.0	0.35	1.9
24	0.820	0.0226	75.3	2.049	0.0564	40.3	0.37	2.3
48	0.833	0.0229	76.5	2.159	0.0595	42.5	0.39	3.0
72	0.892	0.0246	81.9	2.237	0.06	42.9	0.41	3.0
96	0.888	0.025	83.3	2.297	0.06	42.9	0.39	3.0

	<u>Au</u>	<u>% of total</u>	<u>Ag</u>	<u>% of total</u>
Extracted, oz/ton ore	0.025	83.3	0.06	42.9
Tail assay, oz/ton	0.005		0.08	
Calculated Head, oz/ton ore	0.030		0.14	

Cyanide Consumed, lb/ton ore	0.39
Lime Added, lb/ton ore	3.0

Leached Residue

Final Residue Weight, grams 1060.40

<u>Tail Assay</u>	<u>ozAu/ton</u>	<u>ozAg/ton</u>
Initial	0.006	0.09
Duplicate	0.005	0.08
Triplicate	0.004	0.08
Average	0.005	0.08

<u>Head Assay</u>	<u>ozAu/ton</u>	<u>ozAg/ton</u>
Initial	0.024	0.12
Duplicate	0.023	0.12
Triplicate	0.026	0.15
Average	0.024	0.13

**DAILY COLUMN LEACH DATA, ANCHOR HILL CORE COMPOSITE,
80 PERCENT MINUS 3/4 INCH FEED**

Date	Days leached	Pregnant Solution Analyses					Barren Solution Analyses		Au Extraction		Ag Extraction	
		NaCN		pH	Au ppm	Ag ppm	Au ppm	Ag ppm	Cum. oz/t	Cum. %	Cum. oz/t	Cum. %
		Vol. l.	Conc. lb/ton									
12/05	1	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.0000	0.0	0.0000	0.0
12/06	2	1.18	1.6	11.9	5.60	6.32	0.00	0.00	0.0036	11.6	0.0040	3.7
12/07	3	5.14	1.1	11.9	2.80	2.20	0.00	0.00	0.0114	36.8	0.0102	9.3
12/08	4	5.14	0.7	11.8	1.12	0.67	0.00	0.00	0.0145	46.8	0.0121	11.0
12/09	5	5.12	1.0	11.7	0.68	0.51	0.00	0.00	0.0164	52.9	0.0135	12.2
12/10	6	5.32	0.9	11.6	0.46	0.41	0.00	0.00	0.0177	57.2	0.0147	13.3
12/11	7	5.12	0.8	11.5	0.33	0.29	0.00	0.00	0.0187	60.2	0.0155	14.1
12/12	8	5.26	1.0	11.5	0.25	0.25	0.00	0.00	0.0194	62.5	0.0162	14.7
12/13	9	5.22	0.9	11.5	0.20	0.22	0.00	0.00	0.0199	64.3	0.0168	15.3
12/14	10	4.56	0.8	11.2	0.20	0.23	0.00	0.00	0.0204	65.9	0.0174	15.8
12/15	11	5.96	1.1	11.1	0.14	0.15	0.00	0.00	0.0209	67.4	0.0178	16.2
12/16	12	5.26	0.9	11.1	0.16	0.17	0.00	0.00	0.0213	68.8	0.0183	16.7
12/17	13	5.48	0.9	11.1	0.08	0.14	0.00	0.00	0.0216	69.6	0.0187	17.0
12/18	14	4.22	0.8	10.9	0.09	0.15	0.00	0.00	0.0218	70.3	0.0191	17.4
12/19	15	4.94	0.9	11.0	0.09	0.15	0.00	0.00	0.0220	71.0	0.0195	17.7
12/20	16	5.40	0.8	10.8	0.07	0.11	0.00	0.00	0.0222	71.7	0.0198	18.0
12/21	17	5.22	0.9	10.9	0.06	0.12	0.00	0.00	0.0224	72.3	0.0202	18.3
12/22	18	5.32	0.8	10.8	0.07	0.09	0.00	0.00	0.0226	72.9	0.0204	18.6
12/23	19	5.52	0.7	10.9	0.05	0.10	0.00	0.00	0.0227	73.4	0.0207	18.8
12/24	20	4.98	0.8	11.0	0.07	0.12	0.00	0.00	0.0229	74.0	0.0210	19.1
12/25	21	5.62	0.8	10.8	0.04	0.07	0.00	0.00	0.0231	74.4	0.0213	19.3
12/26	22	5.24	1.0	10.6	0.05	0.08	0.00	0.00	0.0232	74.8	0.0215	19.5
12/27	23	5.02	1.0	10.7	0.07	0.09	0.00	0.00	0.0234	75.5	0.0217	19.8
12/28	24	4.78	0.6	10.7	0.08	0.10	0.00	0.00	0.0236	76.1	0.0220	20.0
12/29	REST	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.0236	76.1	0.0220	20.0
01/04	31	6.42	0.4	9.9	0.06	0.07	0.00	0.00	0.0238	76.8	0.0222	20.2
01/05	32	4.60	0.7	10.3	0.15	0.34	0.00	0.00	0.0242	78.0	0.0231	21.0
01/06	33	5.08	0.8	10.6	0.04	0.12	0.00	0.00	0.0243	78.4	0.0234	21.3
01/07	34	5.00	0.8	10.3	0.04	0.09	0.00	0.00	0.0244	78.7	0.0237	21.5
01/08	35	5.36	0.8	10.5	0.00	0.05	0.00	0.00	0.0244	78.7	0.0238	21.6
01/09	REST	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.0244	78.7	0.0238	21.6
01/16	43	5.78	0.3	9.8	0.00	0.00	0.00	0.00	0.0244	78.7	0.0238	21.6
01/17	44	4.58	1.0	10.3	0.12	0.28	0.00	0.00	0.0247	79.7	0.0245	22.3
01/18	45	4.92	0.6	10.3	0.05	0.09	0.00	0.00	0.0248	80.1	0.0247	22.5
01/19	46	5.64	1.1	10.3	0.00	0.05	0.00	0.00	0.0248	80.1	0.0249	22.6
01/20	47	4.90	0.8	10.3	0.00	0.07	0.00	0.00	0.0248	80.1	0.0251	22.8
01/21	48	5.18	0.8	10.4	0.00	0.06	0.00	0.00	0.0248	80.1	0.0252	22.9
01/22	49	5.18	0.8	10.3	0.00	0.06	0.00	0.00	0.0248	80.1	0.0254	23.1
01/23	50	5.28	0.7	10.3	0.00	0.05	0.00	0.00	0.0248	80.1	0.0256	23.2
01/24	WASH	5.26	0.5	10.4	0.00	0.05	0.00	0.00	0.0248	80.1	0.03	27.3
01/25	52	5.18	0.2	10.5	0.00	0.00	0.00	0.00	0.0248	80.1	0.03	27.3
01/26	53	5.14	0.2	10.5	0.04	0.00	0.00	0.00	0.025	80.6	0.03	27.3
01/27	54	5.18	0.3	10.4	0.00	0.00	0.00	0.00	0.025	80.6	0.03	27.3
01/28	55	4.00	0.1	10.3	0.00	0.00	0.00	0.00	0.025	80.6	0.03	27.3
01/29	56	6.46	0.0	10.3	0.00	0.00	0.00	0.00	0.025	80.6	0.03	27.3

DAILY COLUMN LEACH DATA, ANCHOR HILL CORE COMPOSITE,
80 PERCENT MINUS 1/2 INCH FEED

Date	Days leached	Pregnant Solution Analyses					Barren Solution Analyses		Au Extraction		Ag Extraction	
		NaCN		pH	Au ppm	Ag ppm	Au ppm	Ag ppm	Cum. oz/t	Cum. %	Cum. oz/t	Cum. %
		Vol. l.	Conc. lb/ton									
12/05	1	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.0000	0.0	0.0000	0.0
12/06	2	0.74	1.4	10.7	7.10	8.72	0.00	0.00	0.0027	9.8	0.0034	2.6
12/07	3	5.00	1.1	11.7	3.59	3.20	0.00	0.00	0.0121	43.2	0.0117	9.0
12/08	4	5.18	0.6	11.8	1.20	0.75	0.00	0.00	0.0153	54.8	0.0137	10.6
12/09	5	5.04	0.7	11.7	0.65	0.53	0.00	0.00	0.0170	60.8	0.0151	11.6
12/10	6	5.42	0.9	11.6	0.41	0.42	0.00	0.00	0.0182	65.0	0.0163	12.5
12/11	7	5.30	0.8	11.5	0.29	0.32	0.00	0.00	0.0190	67.8	0.0172	13.2
12/12	8	5.30	0.9	11.4	0.24	0.27	0.00	0.00	0.0197	70.2	0.0179	13.8
12/13	9	4.86	0.9	11.4	0.18	0.25	0.00	0.00	0.0201	71.8	0.0186	14.3
12/14	10	5.20	0.9	11.1	0.15	0.22	0.00	0.00	0.0205	73.3	0.0192	14.7
12/15	11	5.76	0.9	11.1	0.10	0.17	0.00	0.00	0.0208	74.4	0.0197	15.1
12/16	12	4.96	0.8	11.2	0.12	0.17	0.00	0.00	0.0211	75.5	0.0201	15.5
12/17	13	5.46	0.9	11.0	0.07	0.15	0.00	0.00	0.0213	76.2	0.0205	15.8
12/18	14	5.54	0.8	11.0	0.07	0.14	0.00	0.00	0.0215	76.9	0.0209	16.1
12/19	15	5.12	0.9	11.0	0.07	0.13	0.00	0.00	0.0217	77.6	0.0213	16.4
12/20	16	5.40	0.9	10.8	0.05	0.10	0.00	0.00	0.0219	78.1	0.0216	16.6
12/21	17	5.20	0.7	10.8	0.04	0.10	0.00	0.00	0.0220	78.5	0.0218	16.8
12/22	18	5.36	0.8	10.8	0.05	0.08	0.00	0.00	0.0221	79.0	0.0221	17.0
12/23	19	5.54	0.7	10.8	0.04	0.09	0.00	0.00	0.0222	79.4	0.0223	17.2
12/24	20	4.76	0.7	10.9	0.05	0.11	0.00	0.00	0.0223	79.8	0.0226	17.4
12/25	21	5.66	0.7	10.9	0.00	0.07	0.00	0.00	0.0223	79.8	0.0228	17.5
12/26	22	4.42	0.8	10.6	0.05	0.11	0.00	0.00	0.0225	80.2	0.0231	17.7
12/27	23	5.08	0.8	10.7	0.05	0.09	0.00	0.00	0.0226	80.7	0.0233	17.9
12/28	24	5.48	0.9	10.7	0.05	0.08	0.00	0.00	0.0227	81.2	0.0235	18.1
12/29	REST	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.0227	81.2	0.0235	18.1
01/04	31	6.48	0.6	10.0	0.04	0.08	0.00	0.00	0.0229	81.7	0.0238	18.3
01/05	32	3.78	0.6	10.3	0.12	0.33	0.00	0.00	0.0231	82.5	0.0244	18.8
01/06	33	5.36	0.9	10.7	0.04	0.13	0.00	0.00	0.0232	82.9	0.0248	19.1
01/07	34	4.94	0.7	10.4	0.00	0.09	0.00	0.00	0.0232	82.9	0.0250	19.3
01/08	35	5.44	0.8	10.5	0.00	0.05	0.00	0.00	0.0232	82.9	0.0252	19.4
01/09	REST	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.0232	82.9	0.0252	19.4
01/16	43	5.94	0.5	9.8	0.00	0.00	0.00	0.00	0.0232	82.9	0.0252	19.4
01/17	44	4.26	0.7	10.4	0.09	0.27	0.00	0.00	0.0234	83.6	0.0258	19.8
01/18	45	4.78	0.6	10.5	0.06	0.11	0.00	0.00	0.024	85.7	0.0261	20.0
01/19	46	5.74	0.8	10.4	0.00	0.05	0.00	0.00	0.024	85.7	0.0262	20.2
01/20	47	4.86	0.9	10.5	0.00	0.07	0.00	0.00	0.024	85.7	0.0264	20.3
01/21	48	5.96	0.8	10.4	0.00	0.06	0.00	0.00	0.024	85.7	0.0266	20.4
01/22	49	5.46	0.7	10.4	0.00	0.05	0.00	0.00	0.024	85.7	0.0267	20.5
01/23	50	5.28	0.8	10.4	0.00	0.05	0.00	0.00	0.024	85.7	0.0268	20.7
01/24	WASH	5.20	0.5	10.4	0.00	0.05	0.00	0.00	0.024	85.7	0.03	23.1
01/25	52	5.38	0.2	10.5	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
01/26	53	5.10	0.2	10.5	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
01/27	54	5.22	0.3	10.4	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
01/28	55	5.00	0.0	10.4	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
01/29	56	5.48	0.0	10.3	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
01/30	57	5.20	0.0	10.4	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
01/31	58	5.30	0.2	10.2	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
02/01	59	5.20	0.1	10.1	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
02/02	60	5.34	0.1	9.8	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
02/03	61	4.76	0.2	10.4	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
02/04	62	5.80	0.0	9.8	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
02/05	63	4.70	0.0	9.7	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
02/06	64	5.12	0.0	9.6	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
02/07	65	5.50	0.0	9.6	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
02/08	66	3.88	0.0	9.5	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
02/09	67	6.62	0.0	9.5	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
02/10	68	5.02	0.0	9.5	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
02/11	69	4.84	0.0	9.5	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1
02/12	70	5.40	0.0	9.5	0.00	0.00	0.00	0.00	0.024	85.7	0.03	23.1



USBR 5600-89 PERMEABILITY AND SETTLEMENT OF SOILS

Project: McClelland Laboratories, Inc. Date: 3-20-96

Westec Project No.: 96034-100 McClelland Job No: 2258 P-2 Lab Log: R-1247

Sample Source: Anchor Hill Core Compostie 1/2" Leached Residue

Classification: BROWN WELL-GRADED GRAVEL with SAND (GW)

Laboratory Data: Sample Placement Method: Loosely Placed in Mold Assumed weight of ore for loading: 110 pcf

Moisture Content Percent: Initial= 0.2 Final= 8.2

PERMEABILITY SUMMARY TABLE

Load (feet)	Sample Height (inches)	Wet Density (pcf)	Moisture Content (percent)	Dry Density (pcf)	Percent Consolidation	Permeability (cm/sec)
0	5.605	83.9	0.2	83.8	0	0
After Saturation	5.560	-	-	84.5	0.80	8.2×10^{-2}
30	5.345	-	-	87.9	4.64	6.2×10^{-2}
60	5.270	-	-	89.1	5.98	6.1×10^{-2}
90	5.205	-	-	90.2	7.14	6.0×10^{-2}
120	5.155	98.6	8.2	91.1	8.03	5.9×10^{-2}

Respectfully Submitted By:

David Stedronsky
Laboratory Manager

INCORPORATED

Client: McClelland Laboratories, Incorporated

Address: 1016 Greg Street

Sparks, Nevada 89431

Phone Number: 356-1300

Dates Sampled: Various

Dates Submitted: Various

Client Reference: Project 2258; samples labeled as below.

Laboratory Reference Numbers: 96-174 through 96-325, noninclusive.

Analysis Performed: Weak Acid Dissociable Cyanide.

Sample Identification

WAD Cyanide, mg/L

239, Detox #1	21
240, Detox #2	4.8
241, Detox #3	2.2
242, Detox #4	1.5
243, Detox #5	0.68
244, Detox #6	0.45
245, Detox #7	0.33
246, Detox #8	49
247, Detox #9	0.37
248, Detox #10	0.36
253, Detox #15	<0.04

Analysis By: Hlubucek/Sharp

Approved By: P. W. Sharp

Date: 2/16/96

Laboratory Report Number 4242